

In the Drawings:

Attached please find one Replacement Drawing Sheet, identified as Figure 1. The only change is the label (Prior Art) added to Figure 1. No other changes to the figures have been made.

Entry of this Drawing Sheet is respectfully requested.

Attachment: One Replacement Drawing Sheet

Remarks

The instant Office Action dated December 13, 2007, notes an objection to the drawings and the specification, and an objection to claims 3, 6-7 14 and 17-18 due to informalities. The following rejection is noted: claims 1-7 and 9-18 stand rejected under 35 U.S.C. § 103(a) over Dalmia *et al.* (“Power Supply Current Monitoring Techniques for Testing PLLs”) in view of Somayajula *et al.* (“Analog Fault Diagnosis Based on Ramping Power Supply Current Signature Clusters”). Claim 8 is objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form.

In response to the objection to the drawings, Applicant has attached a replacement drawing sheet to this paper in which Figure 1 is designated as prior art as indicated on page 6 of this paper. Thus, Applicant requests that the objection to the drawings be removed.

Applicant respectfully declines to add section headings to the specification because the indicated suggestions in 37 C.F.R. § 1.77(b) are not statutorily required for filing a non-provisional patent application under 35 USC § 111(a), but per 37 C.F.R. § 1.51(d) are only guidelines that are suggested for applicant's use. They are not mandatory, and when Rule 77 was amended in 1996 (61 FR 42790, Aug. 19, 1996), Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks, stated in the Official Gazette:

“Section 1.77 is permissive rather than mandatory. ... 1.77 merely expresses the Office's preference for the arrangement of the application elements. The Office may advise an applicant that the application does not comply with the format set forth in 1.77, and suggest this format for the applicant's consideration; however, the Office will not require any application to comply with the format set forth in 1.77.”

In view of the above, Applicant prefers not to add section headings.

Applicant respectfully submits that the objections to claims 3, 6-7 14 and 17-18 are moot in view of the amended claims. Thus, Applicant requests that the objection to claims 3, 6-7 14 and 17-18 be removed.

Applicant respectfully traverses the § 103(a) rejection of claims 1-7 and 9-18 because the cited combination does not correspond to the claimed invention which includes, for example, aspects directed to providing a power supply signal to the power supply input of the phase locked loop that has a variation profile that prevents the voltage controlled

oscillator from outputting an oscillating output signal. The Office Action acknowledges that the cited portions of the Dalmia reference do not disclose these aspects of the claimed invention. In an attempt to address this deficiency, the Office Action cites to portions of the Somayajula reference that also do not teach these aspects. More specifically, the cited portions of Somayajula teach application of a ramp signal at a power supply node (*see, e.g.*, Figure 1); however, these portions do not mention that the ramp signal has a variation profile that prevents that output signal of a voltage controlled oscillator from oscillating. Thus, the Office Action fails to cite to any reference that teaches these aspects of the claimed invention. Instead the Office Action simply improperly concludes that these aspects of the claimed invention would be obvious because “merely optimizing the frequency of a waveform requires only routine skill in the art.” Thus, the Office Action relies upon improper conclusory statements in asserting obviousness, thereby directly contradicting the U.S.P.T.O. guidelines for maintaining an obviousness rejection under KSR (“Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”). *See KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (U.S. 2007).

Moreover, Applicant submits that the Office Action’s assertion that the claimed invention is “merely optimizing the frequency of a waveform” (*i.e.*, the frequency of the power supply signal) to prevent the output signal of a voltage controlled oscillator from oscillating is erroneous. Applicant respectfully directs the Examiner to Applicant’s Figure 3, which illustrates that the variation profile of power supply input V_{DD} is such that the output of the voltage controlled oscillator is prevented from oscillating (*i.e.*, rise time T_{RISE} as well as level time T_{VDD} must be short enough to just prevent the voltage controlled oscillator from starting). *See, e.g.*, paragraph 0031 of Applicant’s specification. Thus, it is the variation profile of the power supply signal, not its frequency, which prevents the output signal of a voltage controlled oscillator from oscillating. As discussed above, neither the Dalmia nor the Somayajula reference teaches providing a power supply input with such a variation profile. Thus, Applicant submits that any combination which includes such aspects would appear to be based upon improper hindsight reconstruction using Applicant’s disclosure as a template. *See, e.g.*, M.P.E.P. § 2145.

In addition, Applicant notes that the Dalmia reference already teaches in the embodiment relied upon by the Office Action that, in the case where one has control over the input terminal of the VCO block, the output of the VCO is prevented from oscillating by application of a DC voltage at the input of the VCO. *See, e.g.*, page 369, Section C. Thus, Applicant submits that the skilled artisan would not have reasonably looked to Somayajula to address a problem already solved by the Dalmia reference.

In view of the above, the cited combination does not correspond to the claimed invention. Accordingly, the § 103(a) rejection of claims 1-7 and 9-18 is improper and Applicant requests that it be withdrawn.

Applicant respectfully traverses the § 103(a) rejection of claims 3 and 14 because the Office Action fails to consider the claims as a whole. *See, e.g.*, M.P.E.P. § 2141.02. The claimed invention requires that the phase locked loop be in an open loop mode meaning that the feedback input of the phase comparator is not connected to the output of the VCO. The cited portions of the Dalmia reference teach that the reference signal is provided to the reference input of the phase/frequency detector. *See, e.g.*, Figure 1. The Office Action's rejection then erroneously relies upon the VCO output being provided to the feedback input of the phase/frequency detector (*i.e.*, on the assertion that the VCO output will be the same frequency as the reference signal). Thus, the cited portions of Dalmia do not teach providing a periodic input signal to both the reference input and the feedback input of the phase comparator because the claimed invention requires that the feedback input of the phase comparator be disconnected from the output of the VCO. Accordingly, the § 103(a) rejection of claims 3 and 14 is improper and Applicant requests that it be withdrawn.

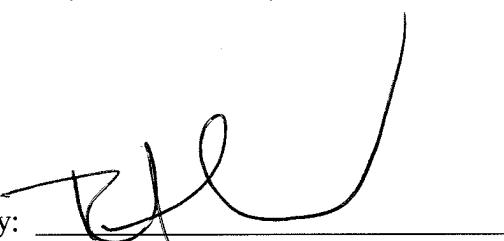
Applicant notes that minor amendments have been made to various claims to improve readability. These amendments are not being made to overcome any of the rejections raised by the instant Office Action, each of which fails for at least the reasons discussed above.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063.

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